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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,058	02/11/2002	Simon Turner	010108	7484

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QUALCOMM INCORPORATED  
5775 MOREHOUSE DR.  
SAN DIEGO, CA 92121

EXAMINER

NGUYEN, HANH N

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/075,058

Applicant(s)

TURNER, SIMON

Examiner

Hanh Nguyen

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 10/2/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

The amendment filed on 10/2/06 have been entered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 6, 8-17, 18, 19-23, 24, 26, 27-29, 30 and 31 are rejected under 35 USC 103(a) as being unpatentable over Vanghi (US Pat. 6,937,861 B2) in view of Huang et al. (US pat. 6,836,478 B1).

In claims 1, 10, 16 and 31, Vanghi discloses a method of conducting wireless data communications ( see fig.4) comprising receiving a packet data transmission from a first wireless network ( access terminal 14 receives ACK message comprising traffic channel assignment from radio network 22 , see col.8, lines 8-15); momentarily suspending communication to the first wireless network (access terminal 14 suspends its connection with the radio network 22, see col.8, lines 20-25); reconfiguring a receiver from a mode corresponding to communication with the first wireless network to a mode corresponding to communication with a second wireless network (suspends its connection with the radio network 22 to perform idle state processing with radio network 28, see col.8, lines 20-40); monitoring a paging channel of the second wireless network ( col.5, lines 30-40; access terminal 14 periodically monitors paging channels transmitted from radio network 28 for incoming call, incoming pages); reconfiguring

the receiver from the mode corresponding to communication with the second wireless network to the mode corresponding to communication with the first wireless network ( once completing the idle state processing with the radio network 28, access terminal 14 returns to its previous connection to radio network 22, col.8, lines 40-47); and transmitting a resume command to the first wireless network ( access terminal 14 resumes communication with access network 12 which includes radio network 22 using previously assigned resource by radio network 22, see col.8, lines 44-48; and further transmitting a connection request to radio network in case a timer has expired; col.9, lines 1-5).

Vanghi does not explicitly disclose transmitting a pause command to the first wireless network. Huang et al. discloses transmitting a pause command to the first wireless network ( see col.2, lines 4-10; while a call is ongoing, a first request to place the call on hold is transmitted via an IP telephone network to a CPE, then the CPE temporarily stops sending IP packets response to receiving the request); transmitting a resume command to the first wireless network (col.2, lines 10-15 & lines 24-27; a second request is transmitted via the Ip network to remove the call from hold and resume sending of the Ip packets into the Ip network). Therefore, it would have been obvious to apply the teachings of Huang et al. into Vanghi in order to switch the call communication from one network to another; and ensure that the previous call with the first network is not lost by using the temporary stop feature. The motivation is avoid missing important calls or priority calls.

In claims 17, 19 and 27, Vanghi substantially discloses most of limitations as disclosed in the rejection of claim 1 above, In addition, Vanghi discloses the access terminal 14 is configured with a suspension timer such that the access terminal 14 can keeps track of how long its

connection with radio network 22 was suspended (a timer configured to send an indication at a time near a start of a paging slot; see col.7, lines 40-50).

In claims 2, 3, 22 and 23, Vanghi discloses, in fig.1, transmitting a pause command to the first wireless network includes transmitting a pause command to a packet data serving node ( PDSN 24) via the first wireless network ( radio network 22), and wherein transmitting a resume command to the first wireless network ( radio network 22) includes transmitting a resume command to the packet data serving node ( PDSN 24) via the first wireless network; and receiving packet data transmission from packet data serving node ( PDSN 24) via the first network ( radio network 22).

In claim 11, Vanghi discloses the steps of transmitting a resume command to the first wireless network, wherein said monitoring occurs between said transmitting a pause command and said transmitting a resume command in claim 1 above.

In claim 6, 8, 9, 12, 13, 14, 15, 20, 21, 28 and 29, Vanghi discloses the pause command including null data rate as well as the resume command includes non-null data rate as indicated in claim 1.

In claims 5, Vanghi does not disclose the pause command includes a command to reduce a data rate. Huang et al. discloses that placing the call on hold can significantly reduce the network bandwidth (see col.2, lines 1-5; pause command reduce data rate). Therefore, it would have been obvious to one skilled in the art that the request to stop transmitting IP packets if applied in Vanghi would reduce data rate in the network. The motivation is to save bandwidth and control congestion in the network.

In claim 24, Vanghi discloses the access terminal is further configured and arranged to receive the packet data transmissions ( receiving traffic channel assignment; fig.4, col.8, lines 10-15) from the first wireless network over a traffic channel; and wherein, near a start of the paging slot ( at some later point in time), a mode of the access terminal is changed from a mode corresponding to the traffic channel ( suspending traffic channel) to a mode corresponding to the paging channel ( to monitor for incoming pages). See col.8, lines 20-27 and col.5, lines 35-42. unit is changed from a mode corresponding to the traffic channel to a mode corresponding to the paging channel. Vanghi does not disclose the access terminal comprising a physical layer control unit configured to receive packet and change from traffic channel to paging channel. An office notice is taken that having a control unit in an access terminal is well-known in the art to control operation of access unit. Therefore, it would have been obvious to comprise a physical layer control unit in an access terminal of Vanghi to receive packet transmission and change from traffic channel to paging channel. The motivation is to provide access terminal capability of receiving incoming communications from one wireless network even while it is active on another wireless network.

In claim 26, as disclosed by Vanghi in claim 24 above, when when the access terminal 14 completes its connection with radio network 28 (paging channnnel), it resumes communications with radio network 22 ( traffic channel) by transmitting on reverse link channel ( changing from paging channel to traffic channel). See col.5, lines 52-55.

In claims 18 and 30, with the discussion of the parent claims, interrupt request signal has been disclosed by Huang et al. in parents claims 1, 10, 16 and 31.

Claim 4, 7 and 25 are rejected under 35 USC 103(a) as being unpatentable over Vanghi (Pat. 6,937,861 B2) in view of Huang et al. (US pat. 6,836,478 B1), and further in view of Rajaniemi et al. (US Pat. 6,487,399 B1).

In claims 4, 7 and 25, Vanghi does not disclose reconfiguring the receiver including changing a frequency of a RF stage. Rajaniemi et al. discloses a multi-mode, dual band mobile terminal 10 ( fig.2) communicating with a network 32 ( first wireless network) at a GSM1900 carrier ( a first mode) at 200KHz ( a first frequency) and another network 32' ( a second network) at TDMA1900 carrier ( a second mode) at 30 KHz (a second frequency). The mobile station 10 tunes its receiver 16 ( fig.1) at 200 KHz, and then converts the frequency to 30 KHZ. See Abstract. Therefore, it would have been obvious to one ordinary skilled in the art to use the tuning frequency of Rajaniemi et al. into Vanghi to change the frequency of the access terminal corresponding from a frequency corresponding to IS-856 mode to a frequency corresponding to IS 2000 mode. The motivation is to reduce interference between dual networks.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

With respect to claim 1 above, examiner believes that Vanghi discloses transmitting a resume command to the first network ( see col. 8, lines 44-48; access terminal 14 resumes communication with access network 12 which includes radio network 22 using previously assigned resource by radio network 22; and further in col.9, lines 1-5, transmitting a connection request to radio network in case a timer has expired). It is noted that the claim does not required whether that a timer is applied to transmit a resume command. However, a new cited reference

Huang et al. ( Us Pat. 6,836,478 B1) is applied with Vanghi to teach the above missed limitations.

With respect to claims 4,7 and 25, examiner understands the claimed “changing a frequency of a radio-frequency stage” as “tuning from a frequency of one network to a frequency of another network” which described in fig.11 of the drawing in the specification. Examiner believes that Rajaniemi et al. in combination with Vanghi and Huang et al. discloses a multi-mode, dual band mobile terminal 10 ( fig.2) communicating with a network 32 ( first wireless network) at a GSM1900 carrier ( a first mode) at 200KHz ( a first frequency) and another network 32’ ( a second network) at TDMA1900 carrier ( a second mode) at 30 KHz (a second frequency). The mobile station 10 tunes its receiver 16 ( fig.1) at 200 KHz, and then converts the frequency to 30 KHZ. See Abstract. Therefore, it is believes the combination of these cited reference teaches changing a frequency of a radio-frequency stage.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Katseff et al. ( Us pat. 6,768,722 B1) ;

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30. The examiner can also be reached on alternate

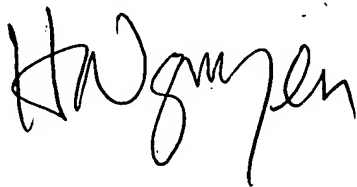


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571 272 7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen

A handwritten signature in black ink, appearing to read 'HNguyen', with a stylized, cursive script.

**HANH NGUYEN  
PRIMARY EXAMINER**